Epidemic Cerebro-Spinal Meningitis of Children.

Dr. O. **Medin** has given (*Nordiskt Medicinskt Arkiv*, vol. xii., 1880) a detailed account of the progress of epidemic meningitis among the nurslings of the great Orphan Institution of Stockholm in the period from 1842 to 1876. During these thirty-five years only two great epidemics were observed among very young children—one in the years 1848 to 1851, and the other in 1856. In the first epidemic, 156 children were attacked and 134 died; in the second, 32 were attacked and 24 died. But besides these epidemics some cases presented themselves in groups of small epidemics, as in 1857, 1865, 1868, and 1875–6. In reference to etiology and pathogenesis, the author finds that the outbreak of the disease shows a positive relation with the season of the year, the greater part of the cases occurring in winter and spring; but this difference appears to depend rather upon some social arrangements as to lodgings in Stockholm than upon the influence of the seasons. Dr. Medin regards cerebro-spinal meningitis as a miasmatic infectious disease, while some cases appear to indicate a contagious miasm; and he thinks that the channel by which the infection is communicated to the perinervous lymphatic system is furnished by the lymphatic spaces of the nasal mucous membrane. He never observed any instance of transmission of the disease to a wet-nurse or an ordinary nurse, and he found very few cases among the children above one year old nursed in other wards of the Institution, and moreover he found that the disease was exclusively confined to nurslings. Hence he regards the epidemic meningitis of the great Children's Hospital as a disease peculiar to the earliest age, and he has accordingly named it *the cerebro-spinal meningitis of children.* Some of the cases were abortive, and some resulted in recovery; but the fatal cases, which constituted the large majority, were marked by the following characters. The invasion of the disease was frequently preceded by cough, and the child generally became ill during the night, with restlessness, fever, heat of scalp, sometimes vomiting, often sleepiness, refusal of breast-milk, and startings in sleep. This state lasted for one or two days, sometimes more, with remissions and exacerbations, the latter generally in the night. Afterwards more violent symptoms supervened, such as intense fever with burning scalp, change in the colour of the face, prostration, drowsiness, loud cries with convulsive movements of the extremities, wildness of the eyes; the fontanelle was often swollen, the face destitute of expression, the eyes half-closed or wide open, pupils most frequently contracted, transient convergent strabismus, slight twitchings of the face. Periodical contractions of the muscles of the trunk and extremities were frequently observed; the skin was almost always hyperæsthetic, the respiration often disturbed, the belly distended, the stools frequent and loose, the urine often albuminous. The course of the disease was subject to frequent remissions, but death supervened in from two to four days; and in other cases the progress was more rapid and lasted only one or two days. As to the general nature of the malady in question, Dr. Medin regards it as an infectious epidemic essentially resembling the epidemic cerebro-spinal meningitis of adults, only distinguished from it by its almost exclusively attacking children at the earliest age. As to its symptomatology and anatomical characters, it is marked by inflammation with purulent exudation in the perinervous lymphatic system, as well as by alterations in many other organs of the body, thus revealing the constitutional nature of the affection. It must be referred to the category of miasmatic infectious diseases with localization in a certain part of the areolar tissue. The *diagnosis* is difficult from the occasional absence of the characteristic symptoms; and the affections for which it may be mistaken are tubercular meningitis, thrombosis of the cerebral sinuses, nervous disturbances of motility, intermittent fever, and infantile cholera. The *prognosis* is unfavourable, and death is almost certain in the advanced cases; and sequelæ were observed in one child three years after it was cured. In this case the child was deaf and dumb, and exhibited slight paresis of the tongue and of the left leg. The *treatment* offers no remarkable feature except in a prophylactic point of view; and as a result of the enlargement of spaces in the city, and better ventilation, the disease has diminished in frequency of late years. The tables drawn up by the author from his own experience show conclusively that the deaths from cerebro-spinal meningitis increase as the cubic space afforded to the patients in the wards diminishes, and *vice versâ*. Children at a very early age require much space and fresh air.—*Med. Times and Gaz.*, April 16, 1881.

On Hypnotic Contractures.

The strange phenomena of hypnotism are elicited with readiness in the subjects of hysteria, and have been for some time the subject of special study at the Salpêtrière by M. CHARCOT. His latest investigations (described at a recent meeting of the Société de Biologie) have been chiefly directed to the phenomena of muscular contracture, which is readily obtained by the mechanical stimulation of the tendon, of the motor nerve, or of the substance of the muscle, so that it can readily be localized in a single muscle or group of muscles. This contraction is very intense, and fixes the limb in a given attitude with a force which cannot be overcome even by energetic efforts. When the hand is closed thus it cannot be opened by any force which can be applied to it. Nevertheless, it can be at once relaxed by mechanical stimulation of the antagonists, such as is afforded by gentle rubbing of the extensors of the hand; the fingers are at once extended, and the contracture disappears as if by enchantment. If the contraction is not thus relaxed, when the patient is awaked one of three things may happen: (1) The contracture may disappear, the patient recovering with consciousness, and the liberty of all movement. (2) If the patient is rendered cataleptic the contracture may continue after the awaking, being, as it were, fixed by the catalepsy. (3) In some cases the contracture persists, although the patient is not rendered cataleptic.

The patients who preserve the contracture after the recovery of consciousness present the closest resemblance to hysterical patients affected with permanent contracture. Friction of the antagonists is powerless to resolve it. A magnet applied near the fixed limb only increases the contracture, but applied to the opposite limb it causes the curious phenomenon of the transfer of the contracture. This changes its place to the opposite side, but does not yield to the magnet. To remove it the patient must be again placed in the hypnotic state, when the stimulation of the antagonists suffices to make it disappear. In most cases the change of contracture occurs in all the muscles of a limb, but it has also been found that when only a few muscles are affected by the contracture, the transfer involves exactly the same muscles of the opposite side; and this is true however the first contracture may have been brought about. Anæmia of a limb, such as is produced by Esmarch's bandage, hinders the development of the neuro-muscular hyper-excitability, as Brissaud and Richet demonstrated. If, for instance, a limb is thus treated, the patient hypnotized, and the muscles of a limb are rubbed, no contracture is induced; but as soon as the current of blood is restored, the contracture occurs, without any further stimulation. Hence it seems that in the anæmic limb there is a sort of potential contracture. The impulse is received by the nerve centres, and is preserved there until the re-establishment of the current of blood, restoring to the muscles the ability to contract, permits it to manifest itself. This latent contracture may be transferred by the